



Maryland Department of Environment
Water Management Administration
Compliance Program - Eastern Division
407 Race St, Cambridge, MD 21613
410-901-4020

Field Inspection Report by: Michele Burroughs

Media Type(s): NPDES Municipal Minor Surface Water

Inspection Date: February 2, 2012

Site Name: Assateague Island-National Seashore HQ WWTP

Facility Address: 7206 National Seashore Lane, Berlin, MD 21811

County: Worcester County

NPDES Municipal Minor Surface Water

Permit / Approval Numbers: DP-2530/MD0021091

Site Status: Active

Site Condition: Noncompliance

Contact(s): Chandra Singh – Singh Operational Services; Superintendent
Richard Mathieu – Operator
Steve Main – Singh Operational Services; retired WWTP Superintendent, NPS

Recommended Action: Refer to Others (See Findings)

Inspection Reason: Routine Scheduled, Initial Quarterly

Inspection Findings:

A. Permit Verification

The facility holds State Discharge Permit 10-DP-2530, NPDES Permit MD0021091, which became effective October 1, 2011 and expired September 30, 2016. The permit renewal application is due to the Department by April 1, 2014. The new permit incorporates a second outfall for the discharge of reuse water, which is designated as DSN 002.

B. Records

December 2011 - The DMR for DSN 001 shows noncompliance. The laboratory data sheets and chains of custody were available. The chain of custody failed to record the start and stop time of the composite sample, sample bottle designations, and sample preservation methods. The MOR failed to report the pH reading and D.O. concentrations from 12/2/-12/7, 12/14/, 12/17, 12/20, 12/30, and 12/31. A (grab) sample was collected on 12/29 and reported on the MOR, as if it were collected as a composite, during a day when there was no reported discharge. The total nitrogen monthly average loading was reported as 0.1 lbs/day, the weekly

average loading as 0.188 lbs/day, the monthly average concentration as 7.4 mg/l, and the weekly average concentration as 13.4 mg/l with 3 excursions. The facility ran the ammonia, organic nitrogen, TKN, nitrate + nitrite, and total nitrogen concentrations 7 times/month, which was not reflected on the DMR sampling frequency. The facility did not have a DMR available for review for DSN 002.

November 2011 - The DMR for DSN 001 shows noncompliance. The laboratory data sheets and chains of custody were available. The chain of custody failed to record the start and stop time of the composite sample, sample bottle designations, and sample preservation methods. The minimum D.O. concentration was reported as 0.0 mg/l with 5 excursions, but should have been reported as 0 excursions. The pH range was reported as 0.0-8.5 s.u. with 5 excursions, but should have been reported as 0 excursions. The pH reading for 11/18 was reported as 0.0 on the MOR, during a period of no discharge. The facility did not have a DMR available for review for DSN 002.

October 2011 - The DMR shows noncompliance. The laboratory data sheets and chains of custody were available. The chain of custody failed to record the start and stop time of the composite sample, sample bottle designations, and sample preservation methods. The total nitrogen monthly average loading was reported as 0.0 lbs/day, the weekly average loading as 0.005 lbs/day, the monthly average concentration as 0.1 mg/l, and the weekly average concentration as 0.51 mg/l with 1 excursion. The average daily flow was reported as 0.002 MGD. The facility did not have a DMR available for review for DSN 002.

September 2011 - The DMR shows compliance. The laboratory data sheets and chains of custody were available. The chain of custody failed to record the start and stop time of the composite sample, sample bottle designations, and sample preservation methods. The 9/15 total nitrogen result of 1.47 mg/l was transcribed to the MOR as 1.17 mg/l. The average daily flow was reported as 0.03 MGD. The facility did not have a DMR available for review for DSN 002.

August 2011 - The DMR shows noncompliance. The laboratory data sheets and chains of custody were available. The chain of custody failed to record the start and stop time of the composite sample, sample bottle designations, and sample preservation methods. The minimum D.O. concentration was reported as 0.0 mg/l with 8 excursions. The pH range was reported as 7.5-8.6 s.u. with 1 excursion. The average daily flow was reported as 0.004 MGD. The 8/25/2011 total nitrogen results of 1.28 mg/l was transcribed as 1.23 mg/l on the MOR.

C. Maintenance and Operations

The system consists of a bar screen, followed by vibratory separator, an equalization tank, anoxic tank, an aerobic tank, a second anoxic tank and a reaeration tank. The effluent from the reaeration tanks is filtered through two parallel basket filters prior to treatment by 4 Berghof ultrafilters. The permeate from the ultrafilters is disinfected with 2 UV units, followed by a 2000 gallon vertical tank. Mr. Singh stated that they intend to install 2 metal slats in the second anoxic tank, separating the tank into three sections. The first section will have a pump, the micro c feed tube and a slat which drops down 4 feet from the typical liquid level in the tank.

The fluid will flow under the first slat to the second section. Mr. Singh stated that the third slat would operate as a weir, being placed down to the bottom of the tank to the desired weir height. Mr. Singh stated the reconfiguration of the anoxic tank was to allow for third zone of the anoxic tank to act as a clarifier, allowing solids to settle out prior to the reaeration tank, and ultimately, the ultrafilters. Mr. Singh stated that the solids from the “clarifier” will recirculate to the aeration tank and/or the primary anoxic tank.

Due to personnel issues, SOS is acting as superintendent of the facility, and have contracted with Mr. Steve Main as an operator and David Mathieu has been hired as an operator by the Park Service.

Mr. Singh stated that he has reordered 4 new ultrafilters, due to low flows through the old ultrafilters. The facility is in receipt of a new grit system which should be installed this spring. The grit system is intended to provide primary treatment for the hauled waste from Assateague Island to the main pump station located at the WWTP. According to Mr. Mathieu, he is unaware of any recalibrations of the flowmeters.

D. Effluent Receiving Water

The facility was discharging at the time of the inspection. The effluent appeared to be clear with no apparent odor.

E. Sampling

There were no samples collected during this inspection.

F. Stormwater Pollution Prevention Plan

This facility is not required to develop nor implement a stormwater pollution prevention plan.

G. Corrective Actions

1. The permittee is advised that the facility should operate the facility in compliance with permit requirements, including but not limited to compliance with discharge permit limits.
2. The permittee is reminded that the flow meter should be calibrated on an annual basis. The permittee is requested to submit a certificate of calibration for the final effluent flow meter within 3 weeks of receipt of this report. The certificate of calibration should be submitted to Mr. David Pushkar, MDE, Division Chief, Compliance Program, 407 Race Street, Cambridge, MD 21613.
3. The permittee is reminded of the necessary changes to the Monthly Operating Report (MOR) due to changes in the definition of weekly average (Sunday to Saturday) in the new permit.

4. The permittee is reminded that a DMR is required to be submitted every month for DSN 002.
5. The permittee is requested to document the start and stop times for the composite sample on the chains of custody. In addition, the permittee is advised that the ortho-phosphorous sample should be field filtered through a 45 micron glass filter within 15 minutes of collection, prior to submittal to the laboratory for analysis and the preservation status stated on the chain of custody. The permitted is advised that the sample submitted to the laboratory for analysis for TP, TKN, N+N, and ammonia should be preserved with sulfuric acid to a pH<2.0 s.u.. The chain of custody for fecal samples should have thiosulfate preservation identified on the chain of custody. All samples should be preserved with ice.
6. The permittee is advised that the facility should control flows through the plant during low flow periods so that the weekly composite sample is able to be collected. The permittee is advised that a grab sample collected from the system on days when there is no discharge is invalid for the parameters (BOD/TSS/TN/TP) which require weekly composite sampling.
7. The permittee is requested to resubmit corrected DMRS for DSN 001 for August 2011, November 2011, and December 2011 to address deficiencies identified in Section B. of this report. The permittee is requested to submit DMRs for DSN 002 for the periods of September 2011 through December 2011. The DMRs should be submitted within 21 days of receipt of this report. In addition, the permittee is requested to resubmit the 5 day reports for August 2011, October 2011, and December 2011 to include the information in corrective action 8., listed below.
8. The permittee is reminded that MDE is to be notified by phone of permit noncompliance within 24 hours of knowledge of the noncompliance, followed by a 5 day report. The permittee shall provide the Department with the following information in writing within five days of such oral notification.
 - a. a description of the noncomplying discharge including the name of the stream and the impact upon the receiving waters;
 - b. cause of noncompliance;
 - c. the duration of the period of noncompliance and the anticipated time the condition of noncompliance is expected to continue;
 - d. steps taken by the permittee to reduce and eliminate the noncomplying discharge;
 - e. steps to be taken by the permittee to prevent recurrence of the condition of noncompliance;
 - f. a description of the accelerated or additional monitoring to determine the nature and impact of the noncomplying discharge; and
 - g. the results of the monitoring described in f. above.

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NPDES Municipal Minor Surface Water - Inspection Checklist

<i>Inspection Item</i>	<i>Status</i>	<i>Comments</i>
1. Does the facility have a discharge permit? [Environment Article §9-323a(1-3)]	No Violations Observed	
2. Is the discharge permit current? Has facility applied for renewal? [Environment Article §9-328a(1)]	No Violations Observed	
3. Is the facility as described in the current permit? Are treatment processes as described in the current permit? [COMAR 26.08.04.01.01B(4)]	No Violations Observed	
4. Has notification been submitted about any new, different or increased discharges? [40 CFR Part 122 Subpart C Section 122.42.b(1-3)]	No Violations Observed	
5. Is the number and location of discharge points as described in the discharge permit? [Environment Article §9-3314]	No Violations Observed	
6. Has permittee submitted correct name and address of receiving waters? [40 CFR 122.21.j(3)]	No Violations Observed	
7. Is the permittee meeting the compliance schedule per permit requirements? [COMAR 26.08.04.02-1.02-1A(3)]	Not Applicable	
8. Has the operator or superintendent been certified by the Board in the appropriate classification for the facility? [COMAR 26.06.01.05A(1)]	No Violations Observed	
9. Are adequate records being maintained for the sampling date, time, and exact location; analysis dates and times; individual performing analysis; and analytical results? [COMAR 26.08.04.03.03B(3)(a, b, c, e)]	Out of Compliance	See findings.
10. Are adequate records being maintained for the analytical methods/techniques used? [COMAR 26.08.04.03.03B(3)(d)]	Out of Compliance	See findings.
11. Does the permittee retained a minimum of 3 years worth of monitoring records including raw data and original strip chart recordings; calibration and maintenance records; and reports? [COMAR 26.08.04.03.03B(1)]	Out of Compliance	See findings.
12. Is the lab and monitoring equipment being properly calibrated and maintained? Are they keeping records to reflect this? [Environment Article §9-3313]	No Violations Observed	
13. Is laboratory controls and appropriate quality assurance procedures properly operated and maintained? [40 CFR Part 122 Subpart C Section 122.41.e]	No Violations Observed	
14. Has the permittee submitted the monitoring results on the proper Discharge Monitoring Report form? [COMAR 26.08.04.03.03C(1)]	Out of Compliance	See findings.

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15. Has the permittee submitted these results within the allotted time? [COMAR 26.08.04.03.03C(2)]	No Violations Observed	
16. Are discharge monitoring reports complete and reflect permit conditions? [COMAR 26.08.04.03B(3)]	No Violations Observed	
17. Is the facility being properly operated and maintained including:(a) stand-by power or equivalent provisions available, (b) adequate alarm system for power or equipment failure available, (c) all treatments units are in service, . [40 CFR Part 122 Subpart C Section 122.41.e]	No Violations Observed	
18. Is sewage sludge managed correctly per permit requirements? [COMAR 26.04.06.03.03]	No Violations Observed	
19. Any by-pass since last inspection? Has permittee submitted notice of any by-pass? [40 CFR Part 122 Subpart C Section 122.41.m(4)(i)(C)]	No Violations Observed	
20. Any non-complying discharges experienced since last inspection? Has regulatory agency been notified? [40 CFR Part 122 Subpart C Section 122.41.l(6)]	Out of Compliance	See findings.
21. Have overflows occurred since the last inspection? [COMAR 26.08.10.02A]	No Violations Observed	
22. Has records of overflows been maintained at the facility for at least five years? [COMAR 26.08.10.06A-B]	No Violations Observed	
23. Are flow measuring devices properly installed and operated, calibration frequency of flow meter adequate, flow measurement equipment adequate to handle expected ranges of flow? [40 CFR Part 122 Subpart C Section 122.41.e]	Out of Compliance	See findings.
24. Are discharge monitoring points adequate for representative sampling? Do parameters and sampling frequency meet the minimum requirements? Does the permittee use the method of sample collection required by the permit? [Environment Article §9-331(4)]	No Violations Observed	
25. Are analytical testing procedures approved by EPA? If alternate analytical procedures are used, proper approval has been obtained? [COMAR 26.08.01.02B(1)]	No Violations Observed	
26. Has the permittee notified the Department of the name and address of the commercial laboratory? [COMAR 26.08.04.03.03A(3)]	No Violations Observed	
27. Were discharges observed at the authorized outfalls? Does the facility have any unauthorized discharges to waters of the State? [Environment Article §9-322]	No Violations Observed	

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28. Does the discharges or receiving waters have any visible pollutants (oil sheen, grease, turbidity, foam, floating solids, color), odor, noncompliant DO concentrations, and/or noncompliant temperature ranges? [Environment Article §9-314b(1)]	No Violations Observed	
29. Were discharge samples collected? [Environment Article §9-261c(1)]	Not Evaluated	
30. Is the facility required to have a storm water pollution prevention plan? Has storm water pollution prevention plan been developed and implemented as required? Does storm water pollution prevention plan require modifications to prevent runoff of pollutants? [40 CFR Part 122 Subpart B Section 122.26.c(1)(I)(A-B)]	Not Applicable	
31. Are the permit conditions being met? [Environment Article §9-326a(1)]	Out of Compliance	See findings.

Inspector: _____
 Michele Burroughs

Received by: _____